

REMARKS

The Office Action mailed on December 1, 2010, considered and rejected claims 1-25, 27, 30 and 31. In particular, claims 16-25, 27 and 31 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Claims 1, 3, 8-11, 16, 18, 23-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tsuchiya* (U.S. Patent No. 5,353,283) in view of *Jackson* (U.S. Patent No. 6,826,275). Claims 2, 6, 7, 17, 21 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tsuchiya* and *Jackson* in view of *Burbeck* (U.S. Patent No. 7,181,536). Claims 4, 12, 13 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tsuchiya* and *Jackson* in view of *Waclawsky* (U.S. Patent No. 5,493,689). Claims 14, 15 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tsuchiya* in view of *Krishnamurthy* (U.S. Patent No. 6,910,024). Claims 5 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tsuchiya*, *Jackson*, and *Burbeck* in view of *Owen* (U.S. Patent No. 6,950,438). Claims 30 and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tsuchiya* and *Krishnamurthy*, and further in view of *Burbeck*.¹

By this paper, claims 1, 14, 16 and 27 have been amended, while no claims have been added or cancelled.² Accordingly, following this paper, claims 1-25, 27, 30, and 31 remain pending, of which, claims 1, 12, 14, 16 and 27 are the independent claims at issue.

As reflected above, the present claims are directed to custom routing of messages between computers over one or more routers. For example, claim 1 recites a method of routing a message from a sending computer system to a receiving computer system such that a routing path for the message can be changed before the message reaches the receiving computer system. In the method of claim 1, a router receives a message that originates at the sending computing system and that needs to be delivered to the receiving computer system. The message contains at least three discrete portions comprising a router list portion identifying one or more routers, a destination identifier portion that remains unchanged during transit, and a message content portion. The router then accesses routing rules specifying how the message should be routed to the receiving computing system. At least a portion of one of the three discrete portions of the message is then compared to the

¹ Although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status of the cited art at any appropriate time, should the need arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

² Support for the claim amendments may be found within the Applicant's application as originally filed. For example, the claim are clearly supported at least by the disclosure in paragraphs 55-62 as numbered in the original application, as well as in the originally filed claims and figures.

routing rules to determine whether the router list portion of the message should be reconfigured by adding or removing routers from the router list portion of the message. The router then removes its identifier from the router list portion of the message and the message is forwarded to the router at the top of the router list portion of the message.

The remaining independent claims generally relate to the embodiment recited in claim 1. Independent claim 16, for example, is directed to a computer program product rather than a method and includes narrower claim language in some regards. Independent claim 12 recites many of the limitations of claim 1, but replaces two acts with a step for a router adjusting a routing path. Independent claim 14 is directed to routing the message from the perspective of the sending computing system, rather than a router. Independent claim 14 removes the limitation of the router removing itself from the routing lists and contains an additional limitation of having content logic rules. Finally, independent claim 27 recites limitation similar to claim 14, but as a computer program product.

1. Rejections under 35 U.S.C. § 101

As noted above, claims 16-25, 27 and 31 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, the claims were rejected as "computer readable medium" was considered as potentially covering propagating signals. Applicant notes that claims 16 and 27 have been amended in order to expedite prosecution. In particular, claims 16 and 27 have been amended to recite "computer-readable storage devices" which store computer-executable instructions. In Applicant's specification, "computer-readable media" is defined in the context of "storage" media and transmission-type media that "carry" executable instructions. It will be noted that the claims previously recited that the computer-readable media "stores" the data. While the Office may interpret claims using the broadest reasonable interpretation, Applicant is unaware of any definition or understanding in the art that holds that a carrier wave or similar signal "stores" computer-executable instructions. Rather, it is commonly understood that such waves carry data, while physical devices store such data. Accordingly, Applicant respectfully submits that the claim rejections are overcome for at least such a reason. Nevertheless, to expedite prosecution, Applicant has clarified that the computer-readable media are indeed "storage devices" which Applicant submits is clearly statutory.

2. Rejections under 35 U.S.C. § 103(c)

As also noted above, the Office cites *Tsuchiya* in combination with *Jackson* to reject independent claims 1 and 16. Claim 12 is rejected as being obvious over *Tsuchiya* and *Jackson* in view of *Waclawsky*. Applicant respectfully submits that the Office has committed clear error.

Tsuchiya generally discloses a method for transmitting a packet via a sequence of nodes in a network. The packet contains a sequence of node identifiers and a pointer pointing to a particular node identifier. The node selects a forwarding table from a set maintained at the node. An entry in the table is referenced based on the identifier pointed to by the pointer. The packet is then transmitted to the next node indicated by the retrieved forwarding table entry, and the pointer is updated to indicate the next node to which the message should be directed. (Col. 6, ll. 26-58; Figs. 8-12).

Notably, the Office has indicated that the "ultimate destination identifier portion" recited in the claims as being unchanged during routing of a message corresponds to the pointer pointing to a field indicating the destination. (Office Action, p. 4). In that regard, the Office specifically states that the pointer changes while the ultimate destination remains unchanged. In that regard, Applicant notes that the claims have been clarified to restate what was already linguistically inherent, namely that it is the identifier portion that remains unchanged during routing of the message. Inasmuch as the Office has specifically stated that the identifier portion (i.e., the pointer) changes, such recitation is directly in conflict with the pending claims. Indeed, inasmuch as changes to the pointer are the very mechanism by which the system in *Tsuchiya* allows routing of a message, to modify such a field to be unchangeable would ultimately render *Tsuchiya* inoperable for its intended use, and would change the fundamental principle on which *Tsuchiya* operates. Accordingly, application of such a reference to the pending claims is clearly erroneous.

Moreover, Applicant notes that claims 1, 12 and 16 specifically recite that a router that receives a message removes the router (i.e., itself) from a routing table, as recited in combination with the other art of record. The Office has noted such a deficiency in *Tsuchiya* as such reference merely changes a pointer to nodes, rather than deleting nodes (Office Action, p. 5), and further cites *Jackson* for such a proposition.

Applicant respectfully submits that *Jackson* is no more instructive in this regard, and that its application to the present claims is clearly erroneous. In particular, *Jackson* is cited as compensating for *Tsuchiya*'s failure to disclose the router adding or removing a router from the router list portion of the message and an act of removing the router itself from the router list portion of the message

before routing the message. *Jackson* is directed to embodiments for controlling call features in a telephone network. *Jackson* discloses, for example, a call being routed through a "router". The router removes the "head entry" and requests that a switch connect the call to the box specified in that entry. (Col. 5, ll. 28-32). In particular, such disclosure in *Jackson* therefore specifically states that a router removes a head entry and then requests a message be sent to the box specified by that entry. Such disclosure is therefore only consistent with the router removing the next destination, rather than itself. There would be no need for the router to remove itself and then ask the switch to connect the call back to itself. In short, the router removes the next destination—rather than the current location—from the routing list and routes the call to the removed destination. Thus, by the time the next destination receives the call, its own information has been removed, and it then repeats the process by removing the head entry specifying still the next destination—rather than itself—and routing the call to such destination. This process is repeated until no more destinations remain. In other words, the router of *Jackson* does not remove itself as a router, as claimed. Instead, *Jackson* teaches that the router removes the head entry (*i.e.*, the next destination) and requests the switch to connect the call to the box specified in that entry. By the time a router receives a message, its own information has already been removed by a prior node. There is thus no need, or even ability, for a router to remove itself as that router was previously removed from the list of destinations by a prior router.

With regard to independent claim 12, Applicant notes that *Waclawsky* appears no more instructive in this regard. In particular, *Waclawsky* relates generally to a system for configuring an event driven interface and analyzing output for monitoring and controlling a data communication network. (*Abstract*). As part of such a system, a routing expert 106 is stored in memory 100, and a router stores a routing table. (Fig. 1B). Notably, however, noting in *Wacklawsky* appears to relate in any way to the removal of a router—let alone a router removing itself—from a routing table in a message, or from a router list as recited in the claims in combination with the other claim elements.

Independent claims 14 and 27 were rejected by *Tsuchiya* in view of *Krishnamurthy*. *Krishnamurthy* is cited by the Office Action to compensate for *Tsuchiya*'s failing to teach a cached router list. However, Applicant respectfully submits that the combination of *Tsuchiya* and *Krishnamurthy* fail to teach or reasonably support at least the claim element of referencing content logic stored at the sending computer system, wherein the content logic describes routing rules based on the discrete content portion of the message, as recited in combination with the other claim elements. The Office Action cites *Tsuchiya* as teaching such elements; however, as previously

submitted, and as reflected below, Applicant asserts that *Tsuchiya* fails to teach or reasonably support at least this element as cited in combination with the other claim elements. Notably, despite such argument being raised multiple times by the Applicant, the Office has not provided any response to specifically address Applicant's remarks.

More particularly, claims 14 and 27 recite messages having at least three discrete portions comprising a final destination, a routing list, and message content. Additionally, the claims recite that the message content portion is independent from the routing portion, and that content logic stored at the sending computer system describes routing rules "based on the discrete message content portion of the message." Notably, for such an element the Office refers to a discussion in *Tsuchiya* that states that the contents of the RC field can be used to control routing by causing the node to select a particular forwarding table. As shown in Figure 6, however, the RC field and the Payload are clearly not only separate fields, but are separated by the offset field and forwarding table identifier fields. Indeed, the RC field is shown as part of the routing directive 210 rather than as part of the payload. Moreover, the Office specifically states, in reference to the message content portion, that the PAYLOAD portion corresponds thereto and is different from the router list portion.

In short, the Office states on one hand that the message content of the claims corresponds to the Payload field in the cited references and is separate from the routing information. On the other hand, where the claim element states that routing rules are based on the message content portion, the Office appears to change its analysis and determine that the RC field apparently corresponds to the message content portion. The Office thus has picked contradictory components to correspond to the same element in the same claims. Such contradiction is clear error.

In view of the foregoing, Applicant respectfully submits that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicant acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any Official Notice. Instead, Applicant reserves the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicant specifically requests that the Examiner provide references supporting the teachings officially noticed, as well as the required reason why one skilled in the art would have modified the cited art in the manner officially noticed.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at (801) 533-9800.

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Respectfully submitted,

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